



Amended Outdoor Programming & AQI Protocols Effective March 3rd, 2025

Dear SLCC Families,

The recent rains have prompted conversation about returning to regular outdoor programming at our school. Additionally, a request has been made to remove the Purple Air monitor and return to using the regional monitor. I have collected some guiding resources to announce the following:

1. Resume Outdoor Programming When AQI is 0-100

We will resume outdoor programming when the AQI is under 100 with our without wind, with the exception of strong Santa Ana winds blowing over the burn zones in our direction. In that rare occasion, we will refrain from outdoor programming for physical safety reasons as well. Families can make personal plans with their children to wear masks. We will continue to monitor daily wind patterns using Watch Duty and can support mask wearing when wind is blowing from the direction of burn zones. Children and adults with asthma should take precautions.

Why?

After emailing back and forth with [Dr. Yifang Zhu](#), Professor of Environmental Health Sciences at UCLA, she had this to say:

“We have taken air quality measurements in the areas impacted by both fires. Our PM_{2.5} measurements in Altadena and Palisades are consistent with regional air quality monitors and are considered typical for the Los Angeles region. Given that your school is miles away from the Eaton Fire burn zone, I don’t think you need to worry too much.

You can simply monitor the AQI in your area, and it is generally safe for healthy children to play outside when the AQI is below 100. For children with preexisting conditions (e.g., asthma), additional precautions should be taken.”

Dr. Suzanne Paulson, Professor and Center for Clean Air Director in UCLA’s Department of Atmospheric Oceanic Sciences, also wrote back and stated the following:

“You are far enough away and somewhat west of the burn area. I don’t think you should be worried. The only exception might be a strong Santa Ana hitting the burn site with winds in your direction. But those are rare.”

2. Continuing the Use of Purple Air Sensor Applying EPA Conversion

We will continue to use our Purple Air sensor applying EPA conversion to monitor AQI.

Why?

Our community took the time to gather and collectively agree to utilize and fund this instrument for the most up-to-date and localized data. According to Coalition for Clean Air, “In California, air pollution is only monitored on a regional scale. That’s 272 active monitors for 40 million people. This simply isn’t enough. It has been well documented that air pollution can vary greatly by

location and geography. Living within close proximity to a freeway, refinery, major industry and other factors such as time of day can be the difference between “good” and “hazardous” levels of exposure.” According to a KQED report published after the 2020 Bay Area wildfires, “The AirNow site displays hourly, not real-time readings. The government sensors that send data to AirNow are very expensive, state-regulated and regularly calibrated by scientists to accurately measure the density of wildfire ash or other particles in the air. But they are more sparsely located than PurpleAir’s network of hundreds of monitors in the region.”

To account for the discrepancy between the calibrated EPA readings provided by regional monitors and the raw PM2.5 readings on the Purple Air map, the following recommendations are provided in two peer-reviewed, empirical studies conducted by K.K. Barkjohn et al., Correction and Accuracy of PurpleAir PM2.5 Measurements for Extreme Wildfire Smoke in Sensors (2022) and D. A. Jaffe et al., An evaluation of PurpleAir correction equations in Atmospheric Measurement Techniques (2023):

Using the EPA conversion on the Purple Air map more accurately accounts for smoke events and everyday urban pollution. However, EPA conversion significantly discounts accurate values for dust events.

I further asked Dr. Zhu whether or not she recommend we calibrate our Purple Air sensor to a conversion and she stated the following:

“You can reference South Coast AQMD’s reports for different PurpleAir models (PA-II or PA-II-FLEX), to determine the conversion factor. Basically, those sensors tend to over-estimate PM2.5 levels in the field.”

Purple Air Founder, Adrian Dybwad has previously stated in an interview with KQED, “To try to remedy the situation, we’ve had a whole bunch of different groups, different scientists, different universities, different agencies look at the data and convert it into a calibrated reading that more accurately compares to the EPA’s data...PurpleAir users can now toggle among several conversions - one listed as “US EPA” developed by the U.S. government; “LRAPA,” developed by the Lane Regional Air Pollution Agency in Oregon; “AQandU,” developed by the University of Utah; and another labeled “WOODSMOKE,” developed by researchers in Australia. These readings will align more closely with those from official sites.”

For families in need of more conservative data, I am providing an additional resource I came across in my research by the Harvard T.H Chan School of Public Health, Healthy Buildings. This was published in the context of the Los Angeles wildfires on Feb 2, 2025 and would support the use of masks when the AQI is moderate/yellow: "Use a portable air quality sensor that measures airborne particles (PM_{2.5}) and airborne gases (TVOC). If particles are sustained above 10 micrograms/m₃ and TVOCs are sustained above 500ppb, you should consider taking extra precautions.”

Lastly, some very robust research is being conducted by the likes of UC Davis, UCLA, Harvard and other research hubs to measure the particulate matter in all regions of Los Angeles and then provide that data in real-time for residents to make actionable choices. According to an article published by *LAist* on the project, “Initial findings will be available on a website (coming soon) and shared with public health officials later this month.”

Our new protocols will take into effect March 3rd, 2025. Please utilize the time between now and then to reach out to me with any questions or concerns. Thank you for your partnership as we continue to execute the most data-informed responses to novelty

pandemics and disasters in a manner which prioritizes the health and safety of young children and our community as a collective.

Warmly,
Chiara Angelicola
Head of School

**Receipt & Acknowledgment of Amended Outdoor
Programming & AQI Protocols**

Effective March 3rd, 2025

I _____ have read, understand, and fully agree to the aforementioned protocols for outdoor programming outlined in this document, which supersede all previously dispersed and signed protocols related to our AQI monitoring and outdoor programming.

Name of Guardian

Child's Name

Guardian Signature

Date

**Complete, Sign & Return by no later than Monday, March 3rd,
2025 before the start of school.**